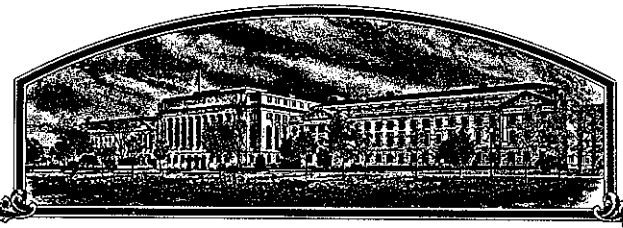

No. 8000149

THE UNITED STATES OF AMERICA

TO ALL TO WHOM THESE PRESENTS SHALL COME:

Pure-Seed Testing, Inc.

Whereas, THERE HAS BEEN PRESENTED TO THE

Secretary of Agriculture

AN APPLICATION REQUESTING A CERTIFICATE OF PROTECTION FOR AN ALLEGED NOVEL VARIETY OF SEXUALLY REPRODUCED PLANT, THE NAME AND DESCRIPTION OF WHICH ARE CONTAINED IN THE APPLICATION AND EXHIBITS, A COPY OF WHICH IS HEREUNTO ANNEXED AND MADE A PART HEREOF, AND THE VARIOUS REQUIREMENTS OF LAW IN SUCH CASES MADE AND PROVIDED HAVE BEEN COMPLIED WITH, AND THE TITLE THERETO IS, FROM THE RECORDS OF THE PLANT VARIETY PROTECTION OFFICE, IN THE APPLICANT(S) INDICATED IN THE SAID COPY, AND WHEREAS, UPON DUE EXAMINATION MADE, THE SAID APPLICANT(S) IS (ARE) ADJUDGED TO BE ENTITLED TO A CERTIFICATE OF PLANT VARIETY PROTECTION UNDER THE LAW.

NOW, THEREFORE, THIS CERTIFICATE OF PLANT VARIETY PROTECTION IS TO GRANT UNTO THE SAID APPLICANT(S) AND THE SUCCESSORS, HEIRS OR ASSIGNS OF THE SAID APPLICANT(S) FOR THE TERM OF eighteen YEARS FROM THE DATE OF THIS GRANT, SUBJECT TO THE PAYMENT OF THE REQUIRED FEES AND PERIODIC REPLENISHMENT OF VIABLE BASIC SEED OF THE VARIETY IN A PUBLIC REPOSITORY AS PROVIDED BY LAW, THE RIGHT TO EXCLUDE OTHERS FROM SELLING THE VARIETY, OR OFFERING IT FOR SALE, OR REPRODUCING IT, OR IMPORTING IT, OR EXPORTING IT, OR USING IT IN PRODUCING A HYBRID OR DIFFERENT VARIETY THEREFROM, TO THE EXTENT PROVIDED BY THE PLANT VARIETY PROTECTION ACT (84 STAT. 1542, AS AMENDED, 7 U.S.C. 2321 ET SEQ.).

PERENNIAL RYEGRASS

'Oregreen'

In Testimony Whereof, I have hereunto set my hand and caused the seal of the Plant Variety Protection Office to be affixed at the City of Washington this 31st day of May in the year of our Lord one thousand nine hundred and eighty-four.

Attest:

Kenneth A. Evans
Commissioner
Plant Variety Protection Office
Livestock, Meat, Grain & Seed Division
Agricultural Marketing Service

John R. Block
Secretary of Agriculture

UNITED STATES DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE
LIVESTOCK, POULTRY, GRAIN & SEED DIVISION

APPLICATION FOR PLANT VARIETY PROTECTION CERTIFICATE

INSTRUCTIONS: *See Reverse.*

FORM APPROVED
OMB NO. 40-R3822

No certificate for plant variety protection may be issued unless a completed application form has been received (5 U.S.C. 553).

1a. TEMPORARY DESIGNATION OF VARIETY	1b. VARIETY NAME	FOR OFFICIAL USE ONLY
Syn 2AD	Oregreen	PV NUMBER 8000149
2. KIND NAME: Ryegrass	3. GENUS AND SPECIES NAME: Lolium hybridum	FILING DATE 8/8/80 / TIME 11:30 (A.M.) P.M.
4. FAMILY NAME (BOTANICAL): Poaceae	5. DATE OF DETERMINATION: August 10,1979	FEE RECEIVED $ 500.00 $ 250.00 / DATE 8/8/80 4/24/84
6. NAME OF APPLICANT(S): Pure-Seed Testing,Inc.	7. ADDRESS (*Street and No. or R.F.D. No., City, State, and ZIP Code*): 73 W. 'G' Street P.O. Bx 449 Hubbard,OR 97032	8. TELEPHONE AREA CODE AND NUMBER: 503-981-7333

9. IF THE NAMED APPLICANT IS NOT A PERSON, FORM OF ORGANIZATION: (*Corporation, partnership, association, etc.*)	10. IF INCORPORATED, GIVE STATE AND DATE OF INCORPORATION	11. DATE OF INCORPORATION
Corporation	Oregon	6/3/74

12. NAME AND MAILING ADDRESS OF APPLICANT REPRESENTATIVE(S), IF ANY, TO SERVE IN THIS APPLICATION AND RECEIVE ALL PAPERS:

Dr. William A. Meyer, Pure-Seed Testing,Inc.

13. **CHECK BOX BELOW FOR EACH ATTACHMENT SUBMITTED:**

- [X] 13A. Exhibit A, Origin and Breeding History of the Variety *(See Section 52 of the Plant Variety Protection Act.)*
- [X] 13B. Exhibit B, Novelty Statement.
- [X] 13C. Exhibit C, Objective Description of the Variety *(Request form from Plant Variety Protection Office.)*
- [X] 13D. Exhibit D, Additional Description of the Variety.

14a. DOES THE APPLICANT(S) SPECIFY THAT SEED OF THIS VARIETY BE SOLD BY VARIETY NAME ONLY AS A CLASS OF CERTIFIED SEED? *(See Section 83(a). (If "Yes," answer 14B and 14C below.)* [ ] YES [X] NO

14b. DOES THE APPLICANT(S) SPECIFY THAT THIS VARIETY BE LIMITED AS TO NUMBER OF GENERATIONS?	14c. IF "YES," TO 14B, HOW MANY GENERATIONS OF PRODUCTION BEYOND BREEDER SEED?
[X] YES [ ] NO	[X] FOUNDATION [ ] REGISTERED [X] CERTIFIED

15a. DID THE APPLICANT(S) FILE FOR PROTECTION OF THIS VARIETY IN OTHER COUNTRIES? [ ] YES [X] NO *(If "Yes," give name of countries and dates.)*

15b. HAVE RIGHTS BEEN GRANTED THIS VARIETY IN OTHER COUNTRIES? [ ] YES [X] NO *(If "Yes," give name of countries and dates.)*

16. DOES THE APPLICANT(S) AGREE TO THE PUBLICATION OF HIS/HER (THEIR) NAME(S) AND ADDRESS IN THE OFFICIAL JOURNAL? [X] YES [ ] NO

17. The applicant(s) declare(s) that a viable sample of basic seed of this variety will be furnished with the application and will be replenished upon request in accordance with such regulations as may be applicable.

The undersigned applicant(s) is (are) the owner(s) of this sexually reproduced novel plant variety, and believe(s) that the variety is distinct, uniform, and stable as required in Section 41, and is entitled to protection under the provisions of Section 42 of the Plant Variety Act.

Applicant(s) is (are) informed that false representation herein can jeopardize protection and result in penalties.

August 5, 1980 — (DATE)

William A. Meyer — (SIGNATURE OF APPLICANT)

1

(DATE)

(SIGNATURE OF APPLICANT)

FORM GR-470 (1-78)

INSTRUCTIONS

GENERAL: Send an original copy of the application and exhibits, at least 2,500 viable seeds, and $500 fee ($250 filing fee and $250 examination fee) to U.S. Dept. of Agriculture, Agricultural Marketing Service, Livestock, Poultry, Grain and Seed Division, Plant Variety Protection Office, National Agricultural Library Building, Beltsville, Maryland 20705. (See section 180.175 of the Regulations and Rules of Practice.) Retain one copy for your files. All items on the face of the form are self-explanatory unless noted below.

ITEM

5 Give the date the applicant determined that he had a new variety based on (1) the definition in section 41(a) of the Act and (2) the date a decision was made to increase the seed.

13a Give: (1) the genealogy, including public and commercial varieties, lines, or clones used, and the breeding method; (2) the details of subsequent stages of selection and multiplication; (3) the type and frequency of variants during reproduction and multiplication and state how these variants may be identified and (4) evidence of uniformity and stability.

13b Give a summary statement of the variety's novelty. Clearly state how this novel variety may be distinguished from all other varieties in the same crop. If the new variety most closely resembles one or a group of related varieties: (1) identify these varieties and state all differences objectively; (2) attach statistical data for characters expressed numerically and demonstrate that these differences are significant; and (3) submit, if helpful, seed and plant specimens or photographs of seed and plant comparisons clearly indicating novelty.

13c Fill in the Exhibit C, Objective Description form, for all characteristics for which you have adequate data.

13d Describe any additional characteristics that are not described, or whose description cannot be accurately conveyed in Exhibit C. Use comparative varieties as is necessary to reveal more accurately the description of characteristics that are difficult to describe, such as, plant habit, plant color, disease resistance, etc.

14a If "YES" is specified (seed of this variety be sold by variety name only as a class of certified seed) the applicant may NOT reverse his affirmative decision after the variety has either been sold and so labeled, his decision published, or the certificate has been issued. However, if the applicant specified "NO," he may change his choice. (See section 180.16 of the Regulations and Rules of Practice.)

15a See section 42 of the Plant Variety Protection Act and section 180.7 of the Regulations and Rules of Practice.

EXHIBIT A.

Origin and Breeding History of
Oregreen (2AD) Intermediate Ryegrass

Oregreen annual X perennial ryegrass is a two clone synthetic variety. The two clones, SBB11A and SBB11B, were derived from a low growing annual ryegrass clones selected from a pasture near Coburg, Oregon, April 30, 1975 that was cro-s pollinated with Manhattan perennial ryegrass in June, 1975. The two clones were selected on the basis of their lower growth habit (similar to a turf-type perennial ryegrass), darker green color, and finer leaves, along with the stem rust resistance, seed and spike characteristics of their annual ryegrass parent. Progeny from these two clones interpollinated in isolation were put through two cycles of selections for improved resistance to stem rust and a lower rate of vertical growth. This seed was tested as Syn 2AD and later named Oregreen.

Seed of Syn 2AD is being kept in storage to be spaced out for breeder seed production. This breeder's seed is used to produce foundation seed which is then used to produce certified seed.

No off-type plants or varients have been observed in the sexual production and multiplication of this variety. Oregreen has been found to be uniform and stable.

EXHIBIT B.

NOVELTY STATEMENT

Oregreen intermediate ryegrass most closely resembles one of its parents, Manhattan perennial ryegrass. However, close comparisons show that Oregreen differs in the following respects:

1. Oregreen is 13 days earlier than Manhattan (Tables A & 9).

2. Oregreen is 90% awned and its seedlings fluoresce 96% of time, Manhattan does neither.

3. Oregreen is resistant to stem rust and Manhattan is not (Tables A & 9).

FORM GR-470-36 (9-76)

FORM APPROVED: OMB NO. 40-R3712

U.S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE
GRAIN DIVISION
HYATTSVILLE, MARYLAND 20782

OBJECTIVE DESCRIPTION OF CULTIVARS
RYEGRASS
(Lolium spp.)

NAME OF APPLICANT(S)

Pure-Seed Testing, Inc.

ADDRESS (Street and No., or R.F.D. No., City, State, and ZIP Code)

73 W. "G" St., P. O. Box 449
Hubbard, OR 97032

VARIETY NAME OR TEMPORARY DESIGNATION

FOR OFFICIAL USE ONLY

PVPO NUMBER 8000149

Place the appropriate number that describes the varietal character of this variety in the boxes below. Place a zero in first box (e.g. 0 8 9 or 0 9) when number if either 99 or less or 9 or less. Descriptions of characters should represent those that are typical for the variety. Ranges may be given also. Measured data should be for SPACED PLANTS. Give additional description for all characteristics that cannot be adequately described in the form below. Append all pertinent comparative trial and evaluation data.

1. SPECIES:

[4] 1 = L. MULTIFLORUM (annual or Italian; includes Westerwoldicum) 2 = L. PERENNE (perennial) 3 = L. RIGIDUM (includes Wimmera)
4 = HYBRID (of species) Lolium multiflorum X perenne 5 = OTHER (Specify) _____

2. PLOIDY:

[1] 1 = DIPLOID 2 = TETRAPLOID [ ] 3 = OTHER (Specify) _____

3. DURATION:

[2] 1 = ANNUAL OR BIENNIAL 2 = SHORT LIVED PERENNIAL (3-4 years) 3 = PERENNIAL (more than 4 years)

STANDARD CULTIVARS

1 = GULF 2 = WIMMERA 62 3 = LINN 4 = PELO
5 = NORLEA 6 = ABERYSTWYTH S-23 7 = MANHATTAN 8 = PENNFINE

4. MATURITY (50% HEADED) Use standards from above for comparison: Table A

[4] 1 = VERY EARLY 3 = EARLY 5 = MEDIUM 7 = LATE 9 = VERY LATE

[1][4] DAYS EARLIER THAN [7] STANDARD CULTIVAR
[ ][7] DAYS LATER THAN [1] STANDARD CULTIVAR

5. MATURE PLANT HEIGHT (Use standard cultivars from above): Table A

[1][0][6] CM. HIGH
[ ][1][7] CM. SHORTER THAN [1] STANDARD CULTIVAR
[ ][ ][5] CM. TALLER THAN [7] STANDARD CULTIVAR

6. PERCENT WINTER DAMAGE (estimated as percent of the area appearing dead). Use standard cultivars from above for comparison: Table G

[ ][5][5] PERCENT DAMAGE OF APPLICATION CULTIVAR
[ ][ ][0] PERCENT DAMAGE OF [7] STANDARD CULTIVAR

7. TURF DENSITY Use standard cultivars from above: Table C

[3][0][5] TILLERS PER 100 SQ. CM.
[1][7][0] LESS TILLERS PER 100 SQ. CM. THAN [7] STANDARD CULTIVAR
[ ][ ][ ] MORE TILLERS PER 100 SQ. CM. THAN [ ] STANDARD CULTIVAR

8. FLAG LEAF (at full growth) Use standard cultivars from above: Table A

[ ][1][9] CM. LENGTH (from ligule to tip) [ ][8.][3] MM. WIDTH (at widest point)
[ ][ ][5] CM. SHORTER THAN [7] STANDARD CULTIVAR
[ ][ ][3] CM. LONGER THAN [8] STANDARD CULTIVAR
[ ][ ][1] MM. NARROWER THAN [1] STANDARD CULTIVAR
[ ][ ][4] MM. WIDER THAN [7] STANDARD CULTIVAR

[ ] FLAG LEAF AT BOOT STAGE: 1 = DEFLEXED 3 = RECURVED 5 = HORIZONTAL 7 = SEMI-ERECT 9 = ERECT

STANDARD CULTIVARS

1 = GULF 2 = WIMMERA 62 3 = LINN 4 = PELO
5 = NORLEA 6 = ABERYSTWYTH S-23 7 = MANHATTAN 8 = PENNFINE

9. LEAVES:

[2] VERNATION: 1 = LEAVES ROLLED IN YOUNG SHOOTS
2 = LEAVES SEMI-ROLLED (folded with rolled edges)
3 = LEAVES FOLDED IN YOUNG SHOOTS

[90] % PLANTS WITH ANTHOCYANIN IN LOWER LEAF SHEATH

[2] FOLIAGE COLOR: 1 = YELLOW GREEN 2 = MEDIUM GREEN 3 = BLUE GREEN

10. SPIKE:

[273] MM. SPIKE LENGTH (tip to internode below lowest floret) Table A.

[ ] MM. SHORTER THAN . . . . . [ ]
[12] MM. LONGER THAN . . . . . [1] } USE STANDARD CULTIVARS FROM ABOVE

[8500] MG. PER TEN SPIKES (trimmed to internode below lowest floret)

[2500] MG. LIGHTER PER TEN SPIKES THAN . . . . . [1]
[ ] MG. HEAVIER PER TEN SPIKES THAN . . . . . [ ] } USE STANDARD CULTIVARS FROM ABOVE

[ ] FLORETS PER SPIKELET

PERCENTAGE OF PLANTS WITH:

RACHIS: [ ] % SMOOTH [100] % ROUGH

SPIKE COLOR: [60] % GREEN [40] % PURPLE

LEMMA: [90] % AWNED [5.7] MM. AWN LENGTH Table A.

[5.9] MM. GLUME LENGTH

[2] 1 = SPIKELET LENGTH NEARLY EQUAL TO OUTER GLUMES
2 = SPIKELET LENGTH MUCH LONGER THAN OUTER GLUMES

11. COLEOPTILE:

[87] % PLANTS WITH ANTHOCYANIN IN COLEOPTILE

12. ANTHER COLOR:

[ ] % PLANTS WITH WHITE ANTHERS [55] % PLANTS WITH YELLOW ANTHERS

[45] % PLANTS WITH PURPLE ANTHERS

13. ROOT AND PLANT CHARACTERS:

[100] % PLANTS WITH PROSTRATE GROWTH HABIT [96] % PLANTS WITH FLUROESCENT ROOTS

[ ] % PLANTS WITH UPRIGHT GROWTH HABIT

14. SEED:

1 [9620] MG. PER 1,000 SEED [58] MM. TOTAL LENGTH OF 10 SEEDS [14] MM. TOTAL WIDTH OF TEN SEEDS

15. DISEASE (0 = NOT TESTED, 2 = HIGHLY SUSCEPTIBLE, 4 = MODERATELY SUSCEPTIBLE, 6 = MODERATELY RESISTANT, 8 = HIGHLY RESISTANT):

4	CROWN RUST (Puccinia coronata) Table E	0	DOLLAR SPOT (Sclerotinia)	0	BROWN PATCH (Rhizoctonia)
6	LEAF SPOT (Helminthosporium) Table 2, D & E	0	MILDEW	7	OTHER *(Specify)* Stem rust (Puccinia graminis)
0	SNOW MOLD (Typhula)	6	RED THREAD (Corticium) Table F		

16. INSECT (0 = NOT TESTED, 2 = HIGHLY SUSCEPTIBLE, 4 = MODERATELY SUSCEPTIBLE, 6 = MODERATELY RESISTANT, 8 = HIGHLY RESISTANT):

[ ] *(Specify)* _____

17. GIVE RESEMBLANCE VALUE IN LEFT COLUMN AND VARIETY CODE NUMBER IN RIGHT COLUMN FOR VARIETY WITH WHICH COMPARISON IS MADE (1 = LESS THAN, 2 = SAME AS, 3 = MORE ERECT, MORE RESISTANT, DENSER, MORE PERSISTENT, DARKER OR GREATER HEIGHT.):

RESEMBLANCE	CHARACTER	SIMILAR VARIETY	
3	PLANT HABIT (erectness)	7	1 = GULF
3	TILLERING	1	2 = WIMMERA 62
1	WINTER HARDINESS	7	3 = LINN
1	HIGH TEMP. STRESS RESISTANCE	7	4 = PELO
1	TURF PERSISTENCE	7	5 = NORLEA
1	PLANT COLOR	7	6 = ABERYSTWYTH S-23
3	VERTICAL SEEDLING GROWTH RATE	7	7 = MANHATTAN
3	CROWN DENSITY	1	8 = PENNFINE
2	MOWER SHREDDING RESISTANCE	7	

18. GIVE AREA OF ADAPTATION AND INTENDED USE: Overseeding dormant Bermudagrass Southern U.S.

19. GIVE AREA TEST RESULTS PRESENTED FROM: New Jersey, Oregon, Mississippi, Georgia

COMMENTS:

EXHIBIT D.

Additional Description of Oregreen

Oregreen is a medium green colored ryegrass possessing both annual and turf-type perennial ryegrass characteristics. It has performed better than common annual ryegrass and similar to most turf-type perennial ryegrasses for the overseeding of dormant bermudagrass putting greens in Georgia for one year and Mississippi for three years (Tables 1, 3, 8, B). Its tiller density and disease resistance in Mississippi overseeding trials has been comparable to perennial ryegrasses and much better than annual ryegrass (Table 2 and 4).

In northern U. S. lawn trials Oregreen has shown the rapid emergence characteristics of annual ryegrass with better turf quality than annual or Linn perennial ryegrass but poorer turf performance than Pennfine or Manhattan perennial ryegrass. (Table D, E and F). Oregreen has had moderately good resistance to brown blight (Helminthosporium siccans) and red thread (Corticium fusiform), moderate susceptibility to crown rust (Puccinia coronata) and good resistance to (Puccinia graminis), (Table A, D, E and F).

Oregreen is less winterhardy in turf than Manhattan ryegrass but more winter hardy than common annual ryegrass (Table G). The mowing quality of Oregreen has been comparable to Manhattan.

TABLE A.

Morphollogical measurements and additional data on ryegrass plants growing in replicated seed yield trials near Hubbard, OR June, 1980. Plots seeded October 1979.

Entry	Plant Height cm	Stan. error of mean	Spike Length cm	Stan. error of mean	Flag Leaf Length cm	Stan. error of mean	Flag Leaf Width mm	Stan. error of mean
Oregreen	106.4	+-2.1	27.3	+-0.8	19.1	+-0.9	8.3	+-0.3
Gulf	123.4	+-1.5	26.1	+-1.1	19.5	+-0.8	9.4	+-0.3
Astor	117.6	+-1.1	24.2	+-0.6	20.0	+-0.8	9.6	+-0.3
Pennfine	91.7	+-1.0	23.6	+-0.4	16.3	+-0.5	6.2	+-0.3
Manhattan	101.7	+-1.0	29.6	+-0.6	24.1	+-0.6	7.9	+-0.3

Entry	Glume Length mm	Stan. error of mean	Awn Length mm	Stan. error of mean	Tillers/ 5.5 inch row	Stan. error of mean
Oregreen	5.9	+-0.9	5.7	+-0.2	223.8	+-20.3
Gulf	6.5	+-1.7	5.1	+-0.3	180.0	+- 9.6
Astor	8.1	+-0.4	7.2	+-0.4	113.5	+-13.0
Pennfine	9.4	+-0.5	0			
Manhattan	9.6	+-0.9	0			

Entry	50% Heading Dates	7/80 Stem Rust (9-1) 9=best
Oregreen	5/26	8
Gulf	5/19	9
Astor	5/27	8
Pennfine	5/22	2
Manhattan	6/8	3

TABLE D.

PERFORMANCE OF RYEGRASSES IN TURF TRIALS
NEAR HUBBARD, OREGON SEEDED SEPTEMBER 1, 1977.
MAINTAINED AT MODERATELY HIGH FERTILITY AND MOWED AT 1¼ INCHES.

Turf Quality 9-1 (9=best)

Entry	T.Q. 9/19/77	T.Q. 11/7/77	T.Q. 12/16/77	1977 T.Q. Ave.	Brown Blight % 12/7/77
Omega	7.7	7.7	6.3	7.2	14.0
Yorktown II	7.3	6.7	7.0	7.0	11.7
Birdie	8.0	6.7	6.0	6.9	21.0
Manhattan	7.3	6.7	6.0	6.7	17.7
Pennfine	7.0	7.0	6.0	6.7	22.7
Oregreen	9.0	5.7	5.0	6.6	9.3
Derby	7.0	6.3	6.0	6.4	19.3
Citation	6.7	7.0	5.3	6.3	35.0
NK-200	6.0	6.0	5.0	5.7	40.0
Linn	7.3	4.0	4.0	5.1	25.0
Lema	9.0	3.0	3.3	5.1	10.0
Annual	9.0	3.0	3.0	5.0	10.0
S 101	7.7	4.0	3.3	5.0	45.0
Pelo	5.3	4.3	4.0	4.5	13.0
LSD at 5%	0.8	0.8	0.7	0.8	6.41

TABLE E.

PERFORMANCE OF RYEGRASSES IN TURF TRIALS
NEAR HUBBARD, OREGON SEEDED SEPTEMBER 1, 1977.
MAINTAINED AT MODERATELY HIGH FERTILITY AND MOWED AT 1¼ INCHES.

Turf Quality 9-1 (9=best)

VARIETY	2/3	4/28	6/21	8/31	10/3	12/13	1978 AVE.	2/3/78 Percent Brown Blight AVE.	10/3/78 Percent Crown Rust AVE.
Yorktown II	7.0	7.7	6.3	6.7	6.7	6.3	6.8	15.7	0.7
Birdie	5.7	7.3	6.0	6.0	6.3	5.7	6.2	30.0	1.0
Omega	6.7	6.7	5.8	6.0	5.8	5.8	6.1	20.0	15.0
Manhattan	6.0	6.7	6.3	5.3	5.3	6.7	6.1	18.7	15.0
Citation	5.0	6.7	5.8	6.3	6.3	6.0	6.0	35.0	15.0
Derby	6.3	6.7	6.0	5.3	5.3	5.0	5.8	20.0	23.3
Pennfine	5.3	7.0	5.5	5.3	5.8	5.5	5.7	30.0	13.0
Oregreen	5.7	5.7	4.3	3.7	4.7	5.0	4.9	10.7	16.0
NK-200	4.0	6.0	5.3	4.3	4.3	4.0	4.7	48.3	35.0
Pelo	4.3	4.7	4.7	4.0	5.3	3.3	4.4	18.3	4.0
Linn	4.7	4.0	5.0	3.0	3.3	3.0	3.8	28.3	14.0
Lema	3.3	4.0	2.7	2.3	2.3	2.7	2.9	15.0	16.7
Annual	1.7	2.3	2.3	1.0	3.0	2.0	2.1	13.3	15.0
LSD at 5%	1.0	0.75	1.0	1.1	1.2	1.0	1.0	7.9	3.9

TABLE F.

PERFORMANCE OF RYEGRASS IN TURF TRIALS
NEAR HUBBARD, OREGON SEEDED SEPTEMBER 1, 1978.
MAINTAINED AT MODERATELY HIGH FERTILITY AND MOWED AT 1¼ INCHES.

Turf Quality 9-1 (9=best)

Entry	2/79	4/79	7/79	9/79	11/79	T.Q. Ave.	9-1 (9=best) Red Thread 12/79
Manhattan	6.0	7.0	7.0	5.3	5.7	6.2	4.7
Citation	4.7	7.3	6.3	5.3	6.7	6.1	7.0
Derby	6.0	6.7	6.7	5.3	5.7	6.1	5.7
Omega	6.3	6.7	6.3	5.3	5.7	6.1	6.0
Birdie	5.7	6.7	6.3	5.7	5.7	6.0	5.7
Pennfine	5.3	6.0	6.7	5.3	5.7	5.8	6.0
NK-200	4.0	5.3	4.7	4.3	4.3	4.5	4.7
Oregreen	3.3	4.7	4.0	3.0	4.0	3.8	7.0
Pelo	4.0	4.3	3.3	2.7	3.7	3.6	5.0
Linn	3.7	4.0	3.7	2.7	3.0	3.4	5.7
Annual	2.7	2.0	2.0	1.0	1.3	1.8	
LSD at 5%	0.9	0.9	0.9	1.1	0.9	0.9	1.2

TABLE G.

Performance of ryegrasses in Adelphia, New Jersey.
Seeded September, 1979.
Maintained in turf trials at moderately high fertility.

Entry	% Winter damage 4/19/80	Stan. error of mean
Annual Ryegrass	83.7	+-1.8
Oregreen	55.0	+-5.0
Manhattan	0.0	+-0.0

TABLE 9.

HEADING DATES ON RYEGRASSES
IN SEED YIELD TRIALS NEAR HUBBARD, OR, 1982.

ENTRY	50% HEADING DATE	STEM RUST 1981 9-1 (9=best)	STEM RUST 1982 9-1 (9=best)
Manhattan	6/9	5.0	3.5
Oregreen	5/27	9.0	9.0